

WHAT IS CLAIMED IS:

5.5 A. > 1. An apparatus for reading an image, the apparatus comprising:  
(a) a reading device having a plurality of photoelectric conversion cells, which receive light transmitted through or reflected from an original, and produce electronic information representing the image as a plurality of pixels; and

(b) a data processing system electronically connected to the reading device and receiving the electronic information therefrom, the data processing system including a memory and logic, the logic defining the electronic information as being divided into a plurality of areas, with each area comprising a plurality of the pixels, and corrects for reading discrepancies in the reading device by applying data correction values to the electronic information corresponding to each area, with the data correction values stored in the memory, and previously obtained by reading a predetermined image of at least one type corresponding or similar to the original.

2. The apparatus of Claim 1, wherein the predetermined image of the type corresponding or similar to the original has a spectral absorption characteristic approximate to that of the original.

3. The apparatus of Claim 1, wherein the reading device includes at least one type of color filter for producing electronic image information corresponding to a plurality of color separated components, wherein there are data correction values stored in the

memory for each of the color components, and the logic applies data correction values in accordance with each of the color components to the electronic information representing the original.

4. The apparatus of Claim 3, wherein the reading device is configured to read the original by separating the original into a plurality of color components using a color separation filter, and dispersion of the spectral absorption characteristic in a reading area of the reading device is caused at least by dispersion of a characteristic of the color separation filter in the reading area of the reading device.

5. The apparatus of Claim 4, wherein the reading device is a line sensor provided with the color separation filter.

6. The apparatus of Claim 1, further comprising a light source section comprising a plurality of point light sources or line light sources, wherein the reading device reads the original by using light emitted from the light source section and transmitted through or reflected from the original.

7. The apparatus of Claim 1, further comprising a light source section comprising LEDs as light emitting sources, wherein the reading device reads the original by using light emitted from the light source section and transmitted through or reflected from the original.

8. The apparatus of Claim 1, wherein the original is a photographic film, and the predetermined original is a photographic film corresponding or similar to the photographic film of the original, exposed to an amount of light corresponding to an amount of gray in the original.

9. The apparatus of Claim 1, wherein the original is a photographic film including a code recorded on the film, or the original is a photographic film accommodated in a cartridge with the code recorded on the cartridge, and the reading device reads the code and produces electronic information corresponding to the code, and the information processing system receives the electronic information corresponding to the code and retrieves from the memory, data correction values for a photographic film corresponding to that code.

10. The apparatus of Claim 1, further comprising a user input device electronically connected to the information processing system, for entering information identifying the original type, which is received by the information processing system, and the logic retrieves from the memory data correction values corresponding or similar to that type.

11. The apparatus of Claim 1, wherein the data correction values corresponding to the areas, correspond to a plurality of regions forming each area, with the quantity of regions forming each area

being less than the quantity of pixels forming that area, and the logic determines a correction for each pixel in that area by interpolation.

12. The apparatus of Claim 1, wherein the predetermined original includes areas of different image densities, and the logic applies the data correction values to the electronic information received for the original based on density of data.

13. A method for reading an original with an image reading device having a plurality of photoelectric conversion cells, the method comprising:

(a) providing a predetermined image of a type the same or similar to that of the original;

(b) using the image reading device to read the predetermined image and produce electronic information representing the predetermined image;

(c) determining data correction values for use with electronic information representing the original based on the electronic information representing the predetermined image;

(d) using the image reading device to read the original and produce electronic information representing the original; and

(e) correcting the electronic information representing the original by applying the data correction values.

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14. The method of Claim 13, wherein the predetermined image of the type corresponding or similar to the original has a spectral absorption characteristic approximate to that of the original.

15. The method of Claim 13, wherein using the image reading device to read the predetermined image and the original, includes producing electronic information corresponding to a plurality of color separated components, and determining data correction values includes determining data correction values for each color component, and correcting the electronic information includes applying the data correction values for each color component.

16. The method of Claim 15, wherein the reading device reads the original by separating the original into a plurality of color components using a color separation filter, and dispersion of the spectral absorption characteristic in a reading area of the image reading device is caused at least by dispersion of a characteristic of the color separation filter in the reading area of the image reading device.

17. The method of Claim 16, wherein the image reading device is a line sensor provided with the color separation filter.

18. The method of Claim 13, wherein the image reading device reads the original using light emitted from a light source section in the image reading device, the light source section comprising a plurality of

point light sources or line light sources, and transmitted through or reflected from the original.

19. The method of Claim 13, wherein the image reading device reads the original by using light emitted from a light source section in the image reading device, the light source section comprising LEDs as light emitting sources, and transmitted through or reflected from the original.

20. The method of Claim 13, wherein the original is a photographic film, and providing a predetermined image includes exposing a photographic film of the same or similar type to that of the original, to light in an amount corresponding to an amount of gray in the original.

21. The method of Claim 13, wherein the original is a photographic film having a code recorded on the film, or the original is film accommodated in a cartridge, with the code recorded on the cartridge, the method further comprising determining the type of photographic film based on the code, for providing a predetermined image of the same or similar film type.

22. The method of Claim 13, further comprising inputting the original type.

23. The method of Claim 13, wherein the electronic information represents an image by a plurality of pixels, and determining data correction values includes deriving data correction values corresponding to regions of the predetermined image, with each region being formed by a plurality of pixels, and correcting the electronic information includes interpolation between data correction values of different regions, to apply a correction to each pixel.

24. The method of Claim 13, wherein providing a predetermined image includes providing a predetermined image having different image densities, and correcting the electronic information is performed at least in part, by applying data correction values based on density of data.

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